# Talking Points – April 1, 2008



I. Our children are less connected to the natural world than at any other time in history. The implications of this, particularly for their physical and mental health, are immense.

**People have limited contact with natural environments**-This is likely due to a complex mix of factors, including changes in the physical and social environments as well as technological and economic changes.

## Children's outdoor experiences have changed dramatically over the past 50 years.

Children today are more likely to play indoors than outdoors. When children do play outside, they participate in different activities; for example, more organized sports and fewer street games. Recent studies have found that:

- Between 1997 and 2003, only half of [American] children ages 9 to 12
  participated in activities such as hiking, walking, fishing and beach play.<sup>10,11</sup> The
  same study also found that children's free time declined more than nine hours a
  week in that time period. <sup>10,11</sup>
- Children under 13 spend only 30 minutes per week outside in free style play.

 At-risk youth have even less exposure to nature; in a 2005 study, 56% reported never having spent time in a natural setting.<sup>1</sup>

## Children's lives have become increasingly structured and adult supervised.

Children spend less and less unsupervised time in the natural environment. Yet, they need unstructured playtime in outdoor settings. <sup>2,12</sup> While playing on a team remains an important hallmark of childhood, it is not the same as playing outdoors. Outdoor free play, like climbing trees, building forts, peeking under the rocks next to the back steps, and splashing in puddles and streams, allows children to build on their natural curiosity, use their imagination and initiate activities; actions that encourage children to discover and learn about the world around them.

Time spent playing make-believe actually helps children develop a critical cognitive skill called "executive function," which affects a child's ability to self-regulate. Self-regulation allows kids to control their emotions and behavior, resist impulses, and exert self-control and discipline. Poor executive function is associated with high dropout rates, drug use and crime whereas good executive function is a better predictor of success in school than a child's IQ. 18

Children's lives have moved indoors and inside their handheld devices: essentially screen spaces have replaced green places. Access to and use of computers, the Internet and hand held devices increased dramatically in the past decade. Studies conducted in association with the Kaiser Family Foundation determined that:

- Between 1999 and 2005:
  - The number of 8 to 18 years olds with access to a home computer increased by 13%, to a total of 86%;<sup>15,16</sup>
  - Internet access for 8 to 18 years olds increased by 27%, a total of 74% of children are now "on-line;" 15,16
  - The number of 8 to 18 year olds who spend more than an hour online each day increased by 17% for a total of 22%.<sup>15,16</sup>
- Between 1987 and 2003, the average person spent 327 more hours, that is
   13 and a half additional days, with entertainment media. 15,16
- Children between the ages of six months and six years spend an average of
   1.5 hours a day with electronic media. 15,16
- Children between the ages of 8 and 18 years spend an average of nearly 6.5 hours a day with electronic media. 15,16
- Nearly one third of children from six months to six years of age live in households where the TV is on all or most of the time. 15,16

#### Parental fear and perceptions keeps children from playing outdoors.

While almost all parents recognize the diverse benefits of outdoor play, concerns about crime, safety, and injury prevented their children from playing outside.<sup>8</sup> Twenty-four hour news coverage of crimes against adults and children feeds parental fear of "stranger danger" and violent crimes against young people. Yet, statistics from the 2007 Duke University's Child and Well-Being index show that crime rates against young people have fallen well below 1975 levels.<sup>6</sup>

## II. The simple act of playing in nature results in healthier and happier children.

A growing body of research confirms that spending time in nature benefits everyone, particularly children. Studies across the United States have found that children who directly experience the natural world are healthier in every major way — intellectually, emotionally, socially, spiritually and physically.<sup>1,2,12,19,20,21</sup>

## a. Physical Health

**Our children face a health crisis.** An indoors and sedentary lifestyle has resulted in many children not getting the physical activity they need.<sup>5</sup> The results include a dramatic increase in the number of overweight children since the 1980s, higher rates of (type 2) diabetes and other health ailments.<sup>3,4</sup> A study by the Center for Disease Control found that playing in natural settings can combat the obesity epidemic and rise in diabetes.<sup>3</sup>

#### b. Mental Health

**People function best in a world filled with natural features**. Studies have shown that stress levels fall within minutes of seeing green spaces.<sup>23</sup> Even a view of nature — green plants or a vista — helps reduce stress in highly stressed children.<sup>23</sup> Furthermore, children demonstrate increased attentional capacity<sup>9,22</sup> and decreases in symptoms of ADD and ADHD, Attention Deficit Disorder and Attention Deficit Hyperactivity Disorder, after spending time in green environments.<sup>2,13,19,20,22</sup>

#### c. Social Skills

Middle childhood appears to be an especially important time for emotional and intellectual development.<sup>12</sup> Children who have regular opportunities for free and unstructured play in the out-of-doors get along better with others; demonstrate greater levels of creativity, cooperation, conflict resolution, and leadership; exhibit improved analytical skills; and show reductions in symptoms of attention deficit disorder.<sup>1,2,12,23</sup>

# d. Future Stewardship and Caring for the Environment Children's outdoor experiences shape how they interact with the natural world as adults.<sup>7,17</sup>

Today's children will determine the future preservation of the natural areas we treasure. Will a child want to help save an eagle if she has never seen a robin? If a child has not put his feet in a stream, will he care if it is protected? The future of our planet depends on today's children forging a connection with the natural world that sustains them.

III. The National Association of State Park Directors and the National Park Service are responding to the nature deficit crisis with a Children in Nature Campaign.

National and State parks provide a wide variety of opportunities for children to connect with nature.

NPS is developing a survey designed to capture your most innovative and successful programs which will be shared nationally with other park managers in a "Best Practices" searchable web-based site. We are also developing enhanced links to "Calendars of Events" that will make it easier and more fun for families to plan a visit to parks in their neighborhood, state or across the country.

State and National Parks and our partners are spreading the message across the Country. Reintroducing children to nature will require the efforts of federal, state and local agencies; non-profit organizations; urban planners and designers; developers; educators; health professionals; political leaders; and citizens throughout society. Everyone has a responsibility, and everyone has a role. Together we can create the conditions that encourage children to play in nature whether that is the large natural areas found on state and national parks to the small pockets of plant and animal life found in backyards, neighborhood parks and green spaces

The Children in Nature Campaign is taking steps to reestablish the connection between children and the natural world. The Campaign is promoting outdoor opportunities not only within parks, but also at other sites in communities throughout the country. The Campaign is also highlighting and addressing the barriers to getting children outside by engaging organizations that are part of the solution to addressing this need.

# The Children in Nature Campaign includes a number of strategic approaches:

- Promote opportunities for children to experience nature in State and National Parks through partnership events
- Developed websites dedicated to children, filled with opportunities for discovery in nature. <a href="www.parks.ca.gov/cinc">www.parks.ca.gov/cinc</a> and <a href="www.kids.parks.ca.gov">www.kids.parks.ca.gov</a>
- Pursue public/private partnerships to increase opportunities for children to get out in nature
- Create a series of media events throughout the country
- Developed a website which provides resources and information on California

  State Parks Children in Nature Campaign <a href="www.parks.ca.gov/cinc">www.parks.ca.gov/cinc</a>

These are some of the resources and printable materials that can be found:

- ✓ The Children in Nature Campaign and Children's Outdoor Bill of Rights Power Point Presentations
- ✓ Calendar of Family Friendly Activities and Events from throughout the park system
- ✓ Research and Resources pages that highlight the latest academic research, news articles, national campaigns and funding opportunities
- ✓ Printable Children's Outdoor Bill of Rights Flyers in English and Spanish and much more.

Resources cited (all weblinks current as of 1 April, 2008).

- 1. American Institutes for Research. (2005). *Effects of Outdoor Education Programs for Children in California*. Submitted to The California Department of Education. Sacramento, CA. Available online at: <a href="http://www.sierraclub.org/youth/california/outdoorschool-finalreport.pdf">http://www.sierraclub.org/youth/california/outdoorschool-finalreport.pdf</a>
- 2. Burdette, H.L., & Whitaker, R.C. (2005). Resurrecting free play in young children: Looking beyond fitness and fatness to attention, affiliation, and affect. *Archives of Pediatrics & Adolescent Medicine* 2005(159), pp 46-50. Available online at <a href="http://www.cnaturenet.org/uploads/Burdette">http://www.cnaturenet.org/uploads/Burdette</a> LookingBeyond.pdf
- 3. Centers for Disease Control and Prevention (CDC). (2000). *CDC funds registries for childhood diabetes*. Press Release from CDC/National Center for Chronic Disease Prevention & Health Promotion. Accessed online 1 November 2007 at <a href="http://www.cdc.gov/od/oc/media/pressrel/r2k1226.htm">http://www.cdc.gov/od/oc/media/pressrel/r2k1226.htm</a>.
- 4. Centers for Disease Control and Prevention (CDC). (2007). *Prevalence of Overweight Among Children and Adolescents: United States, 2003-2004*. CDC/National Center for Health Statistics. Accessed online 1 April 2008 at http://www.cdc.gov/nchs/products/pubs/pubd/hestats/overweight/overwght\_child\_03.htm.
- 5. Centers for Disease Control and Prevention (CDC). (2003). "Physical Activity Levels Among Children Aged 9 to 13 Years—United States, *Morbidity and Mortality Weekly Report (MMWR) Weekly*; 52(33): pp. 785-88. Accessed on-line 1 April, 2008 at <a href="http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5233a1.htm">http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5233a1.htm</a>
- 6. Charles, C.; Louv, R.; Bodner, L.; Guns, B. (2008). Children and Nature 2008: A Report on the Movement to Reconnect Children to the Natural World. *The Children and Nature Network*. Accessed online 28 March, 2008 at http://www.cnaturenet.org/uploads/CNMovement.pdf.
- 7. Chawla, L. (2006). Learning to love the natural world enough to protect it. *Barn* (2), pp 57-78. Available online at: http://www.cnaturenet.org/02 rsrch studies/PDFs/Chawla LearningtoLove.pdf
- 8. Clements, R. (2004). "An Investigation of the State of Outdoor Play." *Contemporary Issues in Early Childhood*. (5) 1. Vol. pp. 68-80. Available online at: <a href="http://www.wwwords.co.uk/pdf/viewpdf.asp?j=ciec&vol=5&issue=1&year=2004&article=7">http://www.wwwords.co.uk/pdf/viewpdf.asp?j=ciec&vol=5&issue=1&year=2004&article=7</a> Clements CIEC 5 1 web&id=130.132.143.49
- 9. Grahn, P., Martensson, F., Lindblad, B., Nilsson, P. & Ekman, A. (1997). Outdoors at daycare. *City and Country* 145.
- 10. Hofferth, S.L. & S.C. Curtin. (2006). *Changes in Children's Time, 1997-2002/3: An Update. A*vailable online at: <a href="http://www.popcenter.umd.edu/people/hofferth">http://www.popcenter.umd.edu/people/hofferth</a> sandra/papers/kidstimefeb06.pdf
- 11. Hofferth, S.L. & Sandberg, J.F. (2001). Changes in American children's use of time: 1981-1997. In Owens, T. & Hofferth, S.L. (Eds.). *Children at the Millennium: Where Have We Come From, Where Are We Going?* Amsterdam, the Netherlands: Elsevier Science Publishers.
- 12. Kellert, S.R. (2005). Nature and Childhood Development. In Kellert, S.R. (Ed.) *Building for Life: Designing and Understanding the Human-Nature Connection.* Washington, D.C.: Island Press. Excerpt available online at: <a href="http://www.cnaturenet.org/02">http://www.cnaturenet.org/02</a> rsrch studies/PDFs/Kellert BuildingforLife.pdf.
- 13. Kuo, F.E. & Taylor, A.F. (2004). A potential natural treatment for Attention-Deficit/Hyperactivity Disorder: Evidence from a national study. *American Journal of Public Health*, (94) 9, pp 1580-1586. Available online at: http://www.lhhl.uiuc.edu/
- 14. Louv, R. (2007). Mother Nature: Raising Healthier Kids. (interview with) USA Today. Accessed online 1 April, 2008 at <a href="http://www.usaweekend.com/07">http://www.usaweekend.com/07</a> issues/071118/071118healthy-kids-report.html

- 15. Rideout, V. and Hamel, E. (2006). The Media Family: Electronic Media in the Lives of Infants, Toddlers, Preschoolers, and Their Parents. Kaiser Family Foundation. available online at: http://www.kff.org/entmedia/entmedia102803pkg.cfm
- 16. Roberts, D. F., Foehr, U., & Rideout, V. (2005). Generation M: Media in the Lives of 8 to 18 Year Olds. Kaiser Family Foundation. Available online at: http://www.kff.org/entmedia/entmedia/30905pkg.cfm
- 17. Schultz, P. Wesley, Shriver, Chris, Tabanico, Jennifer J. & Khazian, Azar M. (2004) Implicit connections with nature. *Journal of Environmental Psychology*. 24(1). pp. 31-42.
- 18. Spiegel, A. (2008). Old Fashioned Play Builds Serious Skills. *National Public Radio, Morning Edition, Your Health.* Accessed at <a href="http://www.npr.org/templates/story/story.php?storyId=19212514">http://www.npr.org/templates/story/story.php?storyId=19212514</a> on February 21, 2008.
- 19. Taylor, A.F., Kuo, F.E. & Sullivan, W.C. (2001). Views of nature and self-discipline: Evidence from inner city children. *Journal of Environmental Psychology*, Special Issue on Environment and Children (22), pp 49-63. Available online at: <a href="http://www.lhhl.uiuc.edu/">http://www.lhhl.uiuc.edu/</a>
- 20. Taylor, A.F., Kuo, F.E. & Sullivan, W.C. (2001). Coping with ADD: The surprising connection to green play settings. *Environment and Behavior* (33) 1, pp 54-77. Available online at: http://www.lhhl.uiuc.edu/
- 21. Taylor, A. & Kuo, F.E. (2006). Is contact with nature important for healthy child development? State of the evidence. In Spencer, C. & Blades, M. (Eds.), *Children and Their Environments: Learning, Using and Designing Spaces*. Cambridge University Press, Cambridge, U.K. Available online at: <a href="http://www.lhhl.uiuc.edu/">http://www.lhhl.uiuc.edu/</a>
- 22. Wells, N.M. (2000). At home with nature: Effects of "greenness" on children's cognitive functioning. *Environment and Behavior* (32), 6, pp 775-795. Available for purchase online at: http://eab.sagepub.com/cgi/content/abstract/32/6/775
- 23. Wells, N.M. & Evans, G.W. (2003). Nearby nature: A buffer of life stress among rural children. *Environment and Behavior* (25) 3, pp. 311-330. Available for purchase online at: http://www.sagepub.co.uk/journals/details/j0163.html